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EXAMINER	
TOSCANO, ALICIA	
ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/529,255	MOENS ET AL.	
	Examiner	Art Unit	
	Alicia M. Toscano	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 October 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14 and 17-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 17-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Objection over Claim 10 is overcome by amendment.

2. Claims 24 and 25 are objected to because of the following informalities: the term 'inferior to 50' is not typically used when describing a range, the Examiner recommends 'less than 50'. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 2, 4-14 and 17-25 are rejected under 35 U.S.C. 103(a) as obvious over Shoji (JP 57-205458) in view of Daly (US 6294610).

This rejection is as set forth in the action dated 9/21/07 reiterated in its entirety below. Regarding the new limitation to A', this is an optional component. Since Shoji meets the requirements of A, the elements of the claim are deemed met. Regarding the new limitation to C', Shoji meets this requirement since Shoji discloses the use of 10,000 MW. Regarding claims 22 and 23, the new B' limitation is an optional component. Since Shoji meets the requirements of B the elements of the claim are deemed met. Regarding claims 24 and 25, since the composition requirements of the claims are met the property is deemed inherent.

An English translation translated through the USPTO of Shoji is provided. The USPTO version and the abstract version submitted by Applicants both have the "number average weight" for the molecular weight. The translation provided by Applicant's discloses only that it is the molecular weight. Since two of the three translations support the molecular weight being the number average molecular weight, it is the Examiner's position that the molecular weight disclosed by Shoji is the number average molecular weight.

Shoji discloses resin compositions for powdered paint. Said compositions comprise (a) 60-96 wt% of a polyester having an acid value of 20-200 mg KOH/g and a Mn of 1,000-10,000 comprising terephthalic acid and neopentyl glycol (pg 4 3rd paragraph), (as required by claim 7 and 8). Since the acid value is above 0 it is the Examiners position that said polyester must be carboxyl terminated since if it had no acid groups it would have no calculable acid value. (b) 3-40 wt% of a glycidyl group containing acrylic polymer having a Mn of 300-5,000 obtained from 20-100 wt% glycidyl methacrylate and 0-80 wt% styrene (as further required by claim 3), (c) 1-20 wt% carboxyl group containing vinyl polymer having an acid value of 10-200 mg KOH/g and a Mn of 300-10,000, (paragraph 2) comprising maleic acid, itaconic acid and the like (pg 6 1st paragraph), (as required by claim 4) and (d) a catalyst (pg 6 3rd paragraph) meeting the compositional elements of Claim 1. The composition may further include fillers and fluid regulators, or flow control agents (pg 6 paragraph 3), (as required by claims 11 and 13).

Shoji does not disclose the Tg of the polymers, as further required by Claim 1

Daly discloses powder coatings. Said coating comprise (a) a glycidyl group containing copolymer (Column 5 Lines 42-65). Said glycidyl copolymer has a weight average MW of 200 to 2000 and a Tg from 40 to 60C, meeting the Tg requirements of both (A) and (A'), (b) a carboxylic acid group containing polyester (Column 3 Lines 49-Column 4 Line 30) having an acid number from 15 to 200 and a Tg from 40 to 65, meeting the Tg requirements of both (B) and (B') and (c) a carboxylic acid group containing acrylic copolymer (Column 4 Lines 32-Column 5 Line 16) having an acid number of between 15 and 200, a Tg of 40-60 and a weight average MW of 1000-20,000, meeting the Tg of (C) and (C'), and (d) a catalyst.

Shoji and Daly thusly disclose similar compositions for powder coating compositions. The selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in Sinclair & Carroll Co. v. Interchemical Corp., 325 U.S. 327, 65 USPQ 297 (1945), as such it would have been obvious to one of ordinary skill in the art at the time of the invention to use the Tg ranges taught by Daly in the composition of Shoji.

Claim 1 further includes a limitation which necessitates the use of at least one low glass transition temperature polymer (A'), (B') and (C'), it is the Examiners position that this is inherent with Daly because the Tg ranges of Daly's 3 polymer components each meet the range requirements of both the high and low Tg polymers.

Alternatively, since the Tg of Daly meets the limitations of the high and low Tg polymers of Applicant's claim 1, Daly anticipates use of both high and low Tg polymers. Daly does not specify using at least one low Tg polymer in his composition. A case of

prima facie obviousness exists in cases where the claimed ranges "overlap or lie inside ranges disclosed by the prior art", see In re Wertheim, 541, F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 91 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). Since the both the low and high Tg ranges of Applicant's Claim 1 overlaps with the Tg of Daly, the composition of Daly has sufficient specificity that it would have been prima facie obvious include in Daly the use of a low Tg polymer in his composition, as required by Claim 1.

Shoji does not disclose the epoxy equivalent weight, as further required by Claim 2. Daly includes elements as set forth above. The epoxy equivalent weight of the acrylic copolymer is 200 to 1000, the MW of the copolymer is 200 to 2000 (Column 5 Lines 48-50), thus, the epoxy equivalent weight per gram of acrylic copolymer may be 1 (200/200). The selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in Sinclair & Carroll Co. v. Interchemical Corp., 325 U.S. 327, 65 USPQ 297 (1945), as such it would have been obvious to one of ordinary skill in the art at the time of the invention to use the epoxy equivalent weight taught by Daly in the composition of Shoji, as required by Claim 2.

Shoji does not disclose whether the carboxylic polyester is amorphous or crystalline. Daly includes elements as set forth above. Daly discloses the carboxylic polyester may range from amorphous to crystalline, which includes semi-crystalline (Column 4 lines 29-30). Daly thusly teaches amorphous, crystalline and semi-crystalline polyesters to be functional equivalents.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include Shoji the use of amorphous or semicrystalline carboxylic polyesters, as taught by Daly, since they are recognized in the art as functional equivalents. As the compositional requirements are met the Examiner finds the viscosity of Claims 5 and 6 and the fusion zone and degree of crystallinity of Claim 6 to inherently be met, thus all the requirements of Claims 5 and 6 are met.

The polyester Shoji is inherently linear or branched depending on the glycol discussed above, meeting the requirements of Claim 9.

Shoji discloses the use of a catalyst but does not disclose the specific catalyst used to cure the composition. Daly includes elements as set forth above. Daly discloses that the catalyst may be phosphonium bromide (Column 6 line 11). The selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in Sinclair & Carroll Co. v. Interchemical Corp., 325 U.S. 327, 65 USPQ 297 (1945), as such it would have been obvious to one of ordinary skill in the art at the time of the invention to use the catalyst taught by Daly in the composition of Shoji, as required by Claim 10.

Shoji discloses the use of pigments such as titanium oxide (examples), Shoji does not specifically disclose that the powder paint can be clear, as further required by Claim 12. Daly includes elements as set forth above. Daly discloses the powder composition to be clear or pigmented (Column 6 lines 3-6). Daly thusly teaches the two options to be functional equivalents.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Shoji the use of a clear powder coating, as taught by Daly, since it is recognized in the art as a functional equivalent of a pigmented coating.

Shoji does not disclose the method of coating the powder coating or the cure time, as required by Claims 14 and 17. Daly includes elements as set forth above. Use of electrostatic tribocharging spray coating is disclosed in Column 6 Lines 39-45, and coated surfaces, which are inherently partially or entirely coated, are disclosed in Column 6 lines 43-45, as required by Claim 17. The cure temperature is disclosed to be 250F (121C) (Column 6 line 59). The selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in Sinclair & Carroll Co. v. Interchemical Corp., 325 U.S. 327, 65 USPQ 297 (1945), as such it would have been obvious to one of ordinary skill in the art at the time of the invention to use the coating method and cure time taught by Daly in the composition of Shoji.

Regarding claims 18-21, since the composition elements are met by Shoji and Daly the gloss and curability of the powder coating are deemed inherent.

4. Claims 1-14 and 17-25 are rejected under 35 U.S.C. 103(a) as obvious over Shoji (JP 57-205458) and Daly (US 6294610) in view of Pettit (5202382).

This rejection is as set forth in the action dated 9/21/07, reiterated below in its entirety.

Shoji and Daly include elements of the invention as discussed above. Shoji and Daly discloses the use of 3 different polymer components in the powder coating, all having a Tg of 40-65, or a high Tg. Shoji and Daly do not explicitly include the use of a low Tg polymer mixed with a high Tg polymer for his powder coating composition.

Pettit discloses thermosetting powder coating compositions. Said compositions comprise a low Tg (Tg –20 to +30) and a high Tg (Tg 40 to 100) polymer. Pettit discloses powder composition which have only a high Tg polymer to be difficult to process and to have poor mixing capabilities (Column 1 Lines 40-52). Inclusion of a low Tg polymer results in good processability and improved blending and pigment dispersions (Column 1 Line 65-Column 2 Line 6).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Shoji and Daly the use a Tg between –20 to +30 for any one of the three polymer components, as taught by Pettit, in order to improve the processability and blending of his powder composition. Thusly, the teaching of Pettit and the compositional elements of Shoji and Daly, as discussed above, meet the requirements of Claims 1-14 and 17.

Regarding claims 18-21, since the compositional elements are met by Shoji and Daly the gloss and curability of the powder coating are deemed inherent.

Response to Arguments

5. Applicant's arguments filed 10/16/08 have been fully considered but they are not persuasive. Applicant argues that in light of the new amendments the rejections at

pages 3 and 4 of the action dated 9/21/07 are moot. Applicant argues that the cited documents do not mention nor teach how to formulate smooth low gloss coatings of the claims. Regarding Pettit Applicant argues the copolymers of Pettit have the same Mn whereas those of the invention have different Mn. As such Applicant argues none of the documents cited mention or teach how to formulate smooth low gloss coatings from the composition of the claims. Applicant argues the combination combines teachings from high gloss and low gloss compositions, which would not be combined by the art-skilled.

6. The Examiner disagrees. The new amendments are met for the reasons set forth above. Arguments drawn therein are thusly moot. That the cited art does not teach or mention a smooth low gloss coating is moot. Since the composition requirements are met it is the position of the Examiner that said smooth low gloss coating is inherent. It is unclear why the smooth low gloss coating would not be inherent and the Examiner requests evidence of such. Further, if Shoji and Daly (or Shoji, Daly and Pettit) do not inherently make a composition with a smooth low gloss finish it is unclear to the Examiner how one would be enabled to make the claimed invention, since in light of the above references all the composition requirements of the claims are met. As such Applicant's arguments therein are not persuasive. That Pettit has the same Mn whereas Applicant's Mn is different is moot. Pettit is used solely to teach why one would manipulate the Mn of Daly and Shoji. Thusly, since Pettit has the same Mn for both polymers one can conclude that the results therein are due solely to the Tg. As such motivation to combine, i.e., to improve processability and blending is proper and the rejection stands. That Pettit is drawn to higher gloss compositions than

Shoji and Daly is moot since Pettit is used solely to teach why one would change the Tg of the polymer. As such the rejections are found proper and stand.

Conclusion

All claims are drawn to the same invention claimed previously and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered earlier. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after a request for continued examination under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Toscano whose telephone number is (571)272-2451. The examiner can normally be reached on M-F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AMT

/Randy Gulakowski/
Supervisory Patent Examiner, Art Unit 1796